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September 2, 1981

Docket No. 50-219
LS05-81-09-002

Posted
Amdt. 56
to DPR-16

Mr. I. R. Finfrock, Jr.
Vice President
Jersey Central Power & Light Company
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Finfrock:

SUBJECT: ENVIRONMENTAL TECHNICAL SPECIFICATION CHANGES

The Commission has issued the enclosed Amendment No. 56 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment is in response to your application dated January 8, 1981.

The amendment approves changes to the Appendix B (Environmental) Technical Specification (ETS) which will allow: (1) suspension of certain monitoring programs [Sections 3.1.2.A(2) and 3.1.2.C], and (2) editorial corrections required because of inconsistencies, or redundancies. The onsite meteorological monitoring program in the Appendix A Technical Specifications is duplicated in Section 3.3, and we have deleted it from Section 3.3.

A discussion of our review and evaluation follows.

Section 3.1.2 Biotic - Aquatic

A. General Ecological Survey

2) Finfish Species and Abundance Trends

You requested that this study, which consists of monthly trawl and beach seine hauls at four locations in the vicinity of the station, be suspended for a period of two years. The objectives of this study, as set forth in the ETS, are to monitor the presence and abundance of key finfish and crustaceans in the vicinity of the station and compare the results of these studies with existing operating and preoperational data as well as contemporaneous impingement and entrainment data. You compared abundance trends for key species over the last 5 years and have shown that the species composition of the fish and principle crustacean communities of the western portion of Barnegat Bay in vicinity of the Oyster Creek Station have not changed significantly from that observed by Marcellus (1972) and McClain (1973).

Variations in abundance of certain key species have been observed. However, these variations are within the range of variability reported for these species from other estuaries and are probably not due to operation of Oyster Creek. Based on the results of five years of sampling, the catch per unit effort values for the bay anchovy, weakfish, and Atlantic menhaden have declined while Atlantic silverside, northern pipefish, summer flounder, sand shrimp and blue crab have increased. Other key species showed no discernable long term trend.

Jersey Central Power & Light (JCP&L) concluded, based on the comparison of data taken during impingement sampling to trawl and seine data, that the power station intake is far more efficient in sampling organisms inhabiting the western portion of Barnegat Bay than the trawling and seining program.

Based on a review of the five years of trawling and sampling data submitted by the licensee, which did not reveal any significant changes in population levels of key species that could not be explained by normal fluctuations, we conclude that the study be discontinued. Our recommendation is further supported by the comparison of impingement data to trawl and seine data which indicates that species composition and abundance of finfish and nektonic crustaceans inhabiting western Barnegat Bay can be characterized by impingement sampling alone. Although you requested suspension of the program for two years, we recommended and your representative agreed that this program be deleted from the ETS. Based on the foregoing discussion we find it acceptable to delete ETS 3.1.2.A(2).

Section 3.1.2 Biotic - Aquatic
C. Entrainment of Organisms

JCP&L requested that this study, which consists of weekly to monthly entrainment sampling using Bongo samplers in the intake and discharge canals, be suspended for a period of two years. The objective of this program is to characterize the species composition and abundance of both ichthyoplankton and macrozooplankton entrained by the Oyster Creek Station and to estimate the survival rate of entrained key species of ichthyoplankton.

You summarized the results of five years of entrainment sampling and found that the most abundant species of ichthyoplankton taken are bay anchovy, winter flounder and northern pipefish. The most abundant macrozooplankters taken were Neomysis americana, sand shrimp, blue crab, megalops and zoea, and ctenophores.

Based on a review of your five years of data, we conclude that a reasonable characterization of the species composition and abundance of ichthyoplankton and macrozooplankton exists. Thus, continuation of this portion of the entrainment study is unnecessary.

Survival estimates based on a comparison of mortality rates from intake and discharge samples were obtained during entrainment sampling. These values were used to estimate immediate condenser passage mortality and immediate entrainment survival. You provided estimates of the survival of these organisms and life stages after condenser and canal passage. However, the confidence that can be placed on the accuracy of these estimates is questionable. This concern is based on the limitations in the sampling gear, in which an unquantifiable portion of captured organisms experience mortality due to compaction or are lost due to extrusion. Furthermore, no long term survival estimates of entrained organisms are provided and the mortality associated with passage down the discharge canal and Oyster Creek is also not quantified. We have assisted in the program of study which is currently being finalized between JCP&L, the United States Environmental Protection Agency (USEPA) and representatives of the State of New Jersey. In conjunction with this effort, you have committed to a two-year program that is designed to determine the abundance of entrainable sized organisms passing through the dilution pumps and the initial and latent mortality of key species entrained in the condenser and dilution pump flows. The resulting mortality data, used in conjunction with the abundance data collected since 1975, will be used to assess the impact of cooling system and dilution pump entrainment. Since this program will attempt to provide a more detailed estimate of mortality due to both the cooling and the dilution systems, examine both short term and latent mortality, and will use state-of-the-art methodology and equipment, we recommended and your representative agreed with the deletion of the remaining portion of the ETS requirement dealing with entrainment. Therefore, we found it acceptable to delete this Specification.

We have also considered the editorial corrections you requested in your January 8, 1981 application, and have determined that they are ministerial in nature, and would rectify inconsistencies and redundancies. Thus, we find these proposed ETS corrections acceptable.

The amendment applies to ETS surveillance requirements and editorial corrections and, therefore, does not authorize a change in effluent types or amounts or an increase in power level, and will not result in any environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the amendment.

Since the amendment pertains to ETS surveillance requirements and editorial corrections, it does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. It does not involve a significant increase in the probability or consequences of an accident, does not involve a significant decrease in a safety margin and,

Mr. I. R. Finrock, Jr.

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September 2, 1981

therefore, does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action and that the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

The Notice of Issuance is also enclosed.

Sincerely,


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosures:

1. Amendment No. 56 to
License No. DPR-16
2. Notice of Issuance

cc w/enclosures:
See next page

Mr. I. R. Finrock, Jr.

- 4 -

September 2, 1981

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 56
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Jersey Central Power and Light Company (the licensee) dated January 8, 1981, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 3.B. of Provisional Operating License No. DPR-16 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 56, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 2, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 56

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Replace the following pages of the Appendix "B" (Environmental) Technical Specifications with the enclosed pages. The revised pages are identified by captioned amendment number and contain vertical lines indicating the area of change.

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2.0 LIMITING CONDITIONS FOR OPERATION

2.1 Thermal

2.1.1 Maximum ΔT Between the Circulating Water Intake and Discharge

Objective

To limit thermal stress to the aquatic ecosystem by limiting the maximum ΔT of the discharge during normal operation with all four circulating water pumps operable.

Specification

The maximum ΔT between the circulating water intake and discharge shall not exceed 12.8°C (23°F) during normal operation with all four circulating water pumps operable. In the event that the specification is exceeded, Section 5.4 shall be complied with and corrective action shall be taken as soon as possible to reduce the ΔT to comply with the specification, unless an emergency need for power exists. Such corrective action could include condenser backwashing or reduction of unit power level.

Monitoring Requirements

The temperature differential between the intake and discharge sensors shall be recorded and alarmed during Station operation. Redundant sensors in both the intake and discharge locations shall be employed to protect against loss of a sensor. The range of this instrumentation shall be at least -6.7 to 48.9°C (20.0 - 120.0°F) and possess an overall system accuracy of $\pm .55^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$). This instrumentation shall be subjected to a channel check weekly and calibrated monthly. In the event that the temperature monitoring system is inoperative during Station operation, intake and discharge temperatures (at approximately the same locations and depths) shall be monitored (1) at once every eight hours during power level changes of less than 25% (with one measurement between 2000 and 2400 hours) or (2) once every four hours during power level changes of greater than 25% or pumping changes. This monitoring shall utilize local reading instrumentation and shall be performed until the temperature monitoring system is returned to service.

Bases

As indicated in the Final Environmental Statement (FES), aquatic organisms moved into the Oyster Creek Nuclear Generating Station (OCGS) discharge

canal by active passage up the discharge canal, being washed from the traveling screens into the dilution pump discharge or by entrainment through the condenser or dilution pumps. Thermal shock studies of fin and shellfish conducted at the OCGS indicated that mortality may result to the key species when exposed to a ΔT of 12.8°C with time exposures greater than the canal passage duration. Because of the operation of dilution pumps (see 2.1.4) the ΔT of 12.8°C occurs only in a very small volume of the western end of the discharge canal (8-10%). A ΔT of 7 to 8°C is prevalent over the remaining volume of the canal. Shock studies at the OCGS indicated that little mortality resulted to key species when exposed to such a ΔT from fall through spring except for bay anchovy and Northern pipefish which had 60 to 70% mortality during Spring. Field collections in the discharge canal documented that thermal mortalities were not observed because of (1) relatively low probability of exposure to the ΔT of 12.8°C , (2) active avoidance of stressful temperature regimes and (3) the existence of lower stress ΔT exit pathways from the western end of the discharge canal.

Entrainment studies conducted under ΔT 's described in the Specification indicate that relatively large numbers of bay anchovy and winter flounder ichthyoplankton are passed through OCGS. Based on limited observations entrainment mortality varies with species from 33 to 100%. The entrainment losses are not considered significant because

(1) the density of these forms are not substantially different between the mouth of Oyster Creek and other Bay locations outside the Station's influence; (2) the Station's water use is insignificant relative to tidal flushing, i.e., about 8% of the Bay's volume is exchanged on each tide with the Atlantic Ocean but the Station's water use varies between 3 to 6% of the tidal volume; (3) the Station's daily water use is insignificant relative to the Bay's volume, i.e., between 0.9% and 2.0%; and (4) preoperational population levels of bay anchovy are similar to the 1976 population. Populations of winter flounder in the Bay have declined recently. This decline has been observed in other New Jersey estuaries during recent years (IA, 1977(a)) and appears unrelated to OCGS operation.

2.1.2 Maximum ΔT Between the Circulating Water Intake and Discharge During Pump or Intake Component Failure or Outage

Objective

To limit thermal stress to the aquatic ecosystem by limiting the maximum ΔT between the circulating water intake and discharging during periods of pump failure or outage.

Specification

1. The maximum ΔT between the intake and the discharge shall not exceed 12.8°C (23.0°F) for more than 48 consecutive hours due to preventive maintenance and inspection of the circulation pumps.
2. The maximum ΔT between the intake and the discharge shall not exceed 12.8°C (23.0°F) for more than 14 consecutive days for reasons of pump failure, corrective maintenance or failure of intake components.
3. A ΔT of 18.3°C (33.0°F) between the intake and the discharge shall not be exceeded.
4. In the event that sections 2.1.2.1 and 2.1.2.2 of the specification are exceeded, Section 5.4 shall be complied with and corrective action shall be taken to reduce the ΔT to comply with the specification, unless an emergency need for power exists. Corrective action could include condenser backwashing or reduction of unit power level.

Monitoring Requirements

The temperature differential between the intake and the discharge shall be recorded and alarmed during Station operation. Redundant sensors in both the intake and discharge locations shall be employed to protect against loss of a sensor. The range of this instrumentation shall be at least -6.7 to 48.9°C (20.0 - 120.0°F) and possess an overall system accuracy of $\pm .55^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$). This instrumentation shall be subjected to a channel check weekly and calibrated monthly.

In the event that the temperature monitoring system is inoperative during Station operation, intake and discharge temperatures (at approximately the same locations and depths) shall be monitored (1) once every eight hours during power level changes of less than 25% or (2) once every four hours during power level changes of greater than 25% or pumping changes. This monitoring shall utilize local reading instrumentation and shall be performed until the temperature monitoring system is returned to service.

Specification

1. When the temperature in Oyster Creek exceeds 30.6°C (87.0°F), as measured 1.2 m (4.0 ft) below the surface during mean tide at the U.S. Route 9 bridge over Oyster Creek, one dilution pump shall be put into operation. If, after one dilution pump has been in operation for at least two hours, and the temperature measured at such point continues to exceed 30.6°C (87.0°F), a second dilution pump shall be put into operation.
2. When the ambient water temperature is less than 15.6°C (60.0°F), two dilution pumps shall be put into operation.
3. The station's third dilution pump shall be held in reserve and shall be put into operation within 15 (fifteen) minutes of such time as an insufficient number of dilution pumps are operable to comply with 2.1.4.1 and 2.1.4.2.
4. Conditions may occur in which an insufficient number of dilution pumps are available to meet the intent of this specification despite the operation of the reserve pump. The station may be operated under these circumstances for a period not to exceed

14 (fourteen) days in order to make necessary repairs. If after 14 (fourteen) days a sufficient number of pumps are still unavailable, corrective action shall be taken within 24 hours to bring the plant into compliance with this specification unless an emergency need for power condition exists. If the corrective action taken involves reduction of unit power output, power shall be reduced as necessary to achieve the same effect as operating the proper number of dilution pumps required in order to meet the intent of this specification.

Monitoring Requirements

The temperature from the sensors located just upstream of the U.S. Route 9 bridge spanning the discharge canal shall be recorded and alarmed during Station operation. The discharge canal temperature shall be measured approximately 1.2 meters (4.0 ft) below the water surface at mean low tide. Redundant sensors in this location shall be employed to protect against loss of a sensor. The range of this instrumentation shall be at least -6.7 to 48.9°C (20.0 - 120.0°F) and possess an overall system accuracy of $\pm .55^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$). This instrumentation shall be subjected to a channel check weekly and calibrated monthly.

In the event that the temperature monitoring system is inoperative during Station operation, discharge canal temperatures (at approximately the same location and depth) shall be monitored (1) once every eight hours during power level changes of less than 25% or (2) once every four hours during power level changes of greater than 25% or pumping changes. This monitoring shall utilize local reading instrumentation and shall be performed until the temperature monitoring system is returned to service.

Bases

The Final Environmental Statement of the OCGS identifies the above dilution pump operating procedure necessary for the protection of aquatic biota. These procedures have two purposes: reduce to an absolute minimum the amount of time that 30.6°C (87.0°F) is exceeded in the discharge canal and reduce the attraction of the discharge canal to overwintering of Atlantic menhaden.

Studies at OCGS indicate (1) the potential for fish avoidance of the discharge canal at temperatures above 30.6°C (87.0°F) and (2) the lack of substantial observed avoidance by some fishes (menhaden, spot and blue crab) up to 34.4°C (94.0°F). Operation of the dilution pumps in the above manner will assure the minimum time period for potential fish avoidance of the discharge canal.

Studies of Atlantic estuaries indicate that young Atlantic menhaden's offshore movements are correlated with autumnal water temperatures of 15°C (59°F). Initiation of maximum dilution pumping at 15.6°C (60.0°F) will assure the least delay in the migration. Continued operation of the two pumps during the winter will reduce the area of attraction and thereby minimize a build-up in the fish standing stock in the discharge canal.

2.1.5 Rate of Change of Discharge Canal Temperature During Winter Shutdowns

Objective

To minimize thermal stress to the aquatic environment due to sudden changes in water temperature during winter shutdowns.

Specification

In the event of a controlled reactor shutdown with intake canal water temperature below 10.0°C (50.0°F), the two operating dilution pumps shall be turned off when the first circulating pump is turned off or upon reaching 70% of full rated power, whichever comes first.

Circulating water pumps shall be removed from service when no longer required for either safe cooldown of the station or any other aspect of the Station's Technical Specifications. This procedure does not apply to automatic or manual Station trips and is not applicable if shutdown deviations are required to protect the health and safety of the public.

Monitoring Requirement

During shutdown the discharge canal bridge temperature shall be monitored continuously by temperature sensors located just upstream of the U.S. Route 9 bridge spanning the discharge canal. The discharge canal bridge temperature shall be measured approximately 1.2 m (4.0 ft) below the water surface at mean tide. Redundant sensors shall be employed. The range of this instrumentation shall be at least -6.7 to 48.9°C (20.0 to 120.0°F) and possess an overall system accuracy $\pm .55^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$). This instrumentation shall be subjected to a channel check weekly and calibrated monthly.

In the event that the temperature sensors are inoperative, the discharge canal bridge temperature at approximately the same location and depth shall be monitored once every hour until such time as the original sensors are returned to service or the Station has been in cold shutdown for 24 hours.

Bases

The Final Environmental Statement for the Oyster Creek Nuclear Generating Station documents three cold shock fish kills associated with rapid temperature decreases caused by plant shutdown during the winters of 1972 and 1974.

During the winter of 1975, the applicant conducted four shutdown surveys. Prior to planned OCGS shutdowns, surveys of the fishes in Oyster Creek were conducted. Observers checked for distressed or moribund fishes during shutdown and after shutdown was completed. Temperatures and times were recorded prior to and after shutdown. The pump shutdown sequence described in the Specification was employed during these surveys and no significant fish mortalities were observed (IA, 1977(a)).

Fishes, particularly menhaden (Brevoortia tyrannus) have been shown to congregate in the Oyster Creek discharge canal when ambient temperatures drop below 8.5°C (47.3°F) (IA, 1977 (a)). When ambient temperatures are below 8.5°C(47.3°F), a rapid decrease in the water temperature has resulted in fish kills when populations of menhaden are overwintering in the thermal effluent. Therefore, when ambient bay temperatures drop below 10.0°C (50.0°F) imposition of a special shutdown procedure to control the rate of temperature change of the discharge is warranted.

Basis

The Final Environmental Statement for the OCGS indicates that Barnegat Bay supports a commercial and sport fishery for seven species of fin and shellfish. The Atlantic Ocean offshore of Barnegat Bay supports a commercial fishery for about forty species. Many of these have life forms which are impinged or entrained by the Station. Analysis of the available catch per unit effort data over time shall be used to assess the effect, if any, of Station operation on the commercial landings. Since OCGS has operated since December 1969, long-term effects of its operation on the fisheries should be manifest. It is anticipated the analysis of the commercial landings will be completed by the end of 1978. JCP&L may then submit a proposal to modify or terminate sampling if conditions permit.

- (2) Finfish Species and Abundance Trends
(Deleted)

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3-4 through 3-6

Amendment No. 56

B. Impingement of Organisms

(1) Conventional Traveling Screens

Objective

The objective of the impingement program prior, to the installation of the fish return system and the sampling pool, is to determine the species composition and abundance of fin and shellfish which become impinged on the circulating water intake screens.

Specifications

Species composition and abundance of fin and shellfish impinged on the circulating water intake screens shall be determined for two 12-hour periods per week at least one of which shall include the period of greatest anticipated impingement (2 hours after sunset). Exact time of the sampling will vary seasonally; however, a minimum

of two 12-hour per week samples shall be collected. When algae or detrital load in the intake water cause frequent unscheduled screen washes, subsampling within sampling periods is permitted.

For each period, records shall be kept of the number of screen washes which occurred and the number sampled. Total number and total weight (or estimated total number and estimated total weight if subsampling is performed) shall be determined for each taxa for each sampling period.

Water quality measurements (temperature, salinity, pH, and dissolved oxygen) of the intake water shall be taken during each sampling period. Sampling equipment shall conform to those presented in Section 3.2.2A2. Meteorological, and station cooling water flow and heat rejection data will be recorded for each sampling period.

Inter-and-intra study element analyses will be performed. The inter-element analysis shall assess statistical significance of comparison of adult fin and shellfish relative abundance and species presence data to assess the impact of impingement.

operational, data on species composition, abundance and biomass, and condition (live, dead or damaged) shall be collected to determine the impingement impact reduction associated with the modifications.

This information, when combined with the results of the general ecological survey of sections 3.1.2A, will provide the empirical bases on which to judge the impact of OCGS operation on Barnegat Bay, Oyster Creek and Forked River.

C. Entrainment of Organisms
(Deleted)

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3-16 through 3-18

Amendment No. 56

D. Fish Kill Monitoring Program

Objective

The objective of this program is to determine the species composition, abundance and distribution of station-induced fish kills due to winter shutdowns.

Specification

After each Station shutdown, when the intake water temperature is below 8.5°C (47.3°F), visual inspections for fish shall be made along

the shores of the discharge canal and the lower reaches of Oyster Creek within 24 hours of the initiation of the shutdown in accordance with the procedures prepared by the licensee per Section 5.5. A continuous temperature record shall be maintained through the 24-hour period after reaching cold shutdown.

Reporting Requirement

For planned shutdowns with the temperature of the intake water below 8.5°C (47.3°F) the NRC Region I office will be notified at least 24 hours in advance of such shutdowns. This notification shall not be given for unplanned, automatic, or manual station trips.

If the shutdown results in greater than 100 fish killed and/or stressed, this event shall be reported to the NRC in accordance with Section 5.6.2.

The results of this program shall be submitted in February of each year covering the preceding 12 months of sampling and four months of data analysis.

APPROXIMATE SAMPLING STATION LOCATIONS FOR
 THE STUDY OF IMPINGED & ENTRAINED ORGANISMS AT
 OYSTER CREEK NUCLEAR GENERATING STATION

SCALE: 1" = APPROXIMATELY 40'

- X IMPINGEMENT SAMPLING AREA
- ENTRAINMENT SAMPLING AREA
- o TEMPERATURE PROBE LOCATIONS

LEGEND

FIGURE 3-3

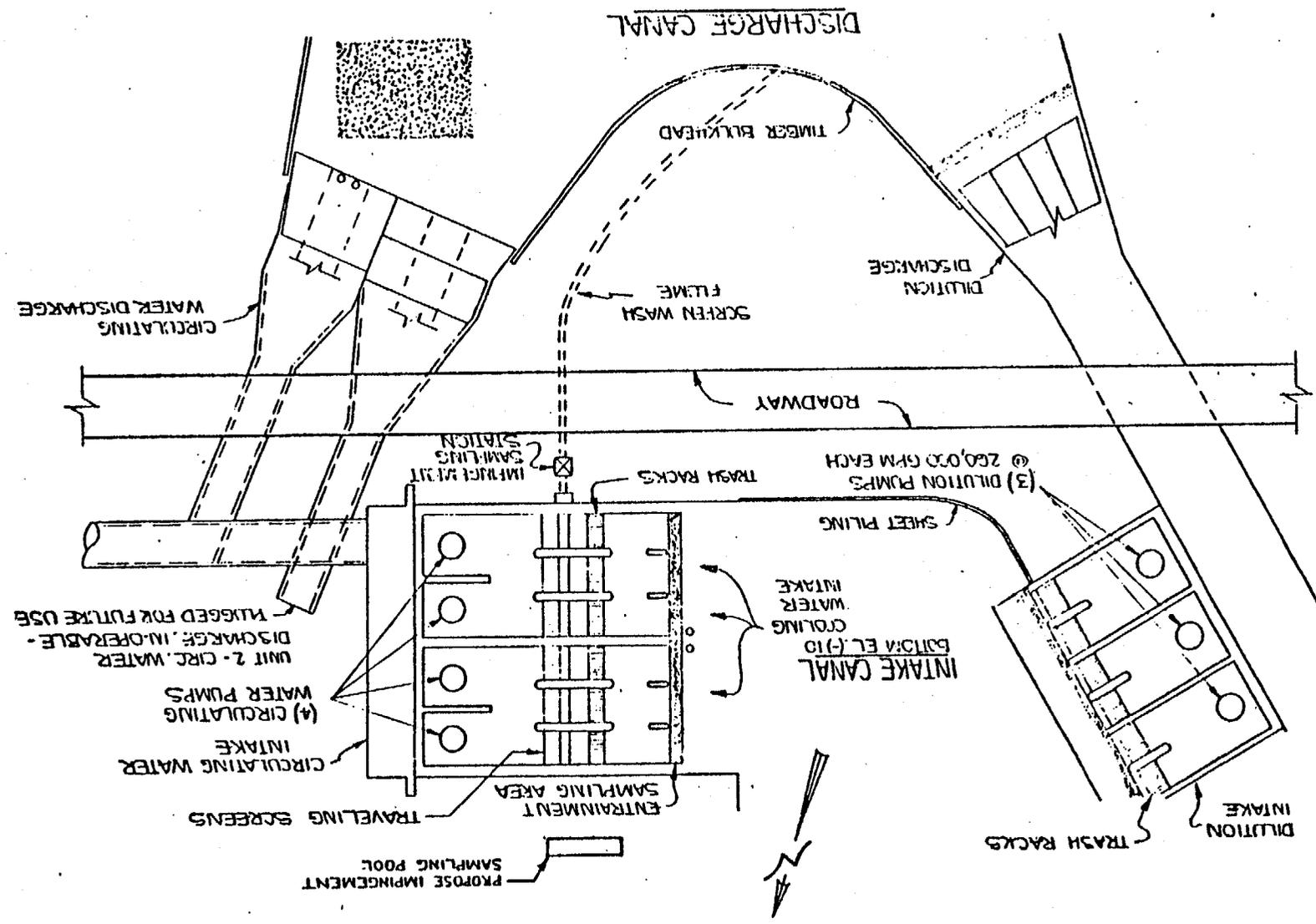


TABLE 3-1 OCETS - NONRADIOLOGICAL SURVEILLANCE

Program	Parameter	Frequency	Gear	Sampling Station	Water Quality
A. General Ecological Survey					
(1) Commercial landings of fin and shellfish	Commercial landings	Once a month	NMFS Report	Ocean County Atlantic County	N.A.
(2) Finfish species and abundance trends (Deleted)					
B. Impingement of organisms					
Before sampling pool installation	Species composition and	Two 12 hr. periods a week	Pit sampler	Screen wash pit	T, Sal, pH, DO, meteorology station flow and heat rejection
After sampling pool installation	Species composition and abundance; Condition (LDD) of sample of impinged organisms	Eight 3-minute samples a week or fourteen 3 minute samples a week depending on screen rotation	Dip net	Pool	Same
C. Entrainment of Organisms (Deleted)					

TABLE 3-1 (Continued)

Program
(Deleted)

Winter Kill

species
composi-
tion and
abundance

When intake
water tempera-
ture below
8.5°C (47.3°F)

visual
Inspec-
tion

shores of
discharge
canal and
lower
reaches
of Oyster
Creek

continuous
temperature
record
throughout the
the 24-hour
period after
reaching
cold shutdown

Bases

The Final Environmental Statement for the Oyster Creek Nuclear Generating Station documents cold shock fish kills associated with rapid temperature decreases caused by plant shutdown during the winter.

Station shutdown during winter months are, on occasion, unavoidable. Due to the physical configuration of the station and the discharge canal, some mortality to organisms will undoubtedly be experienced during winter shutdowns.

Mortality information associated with a winter shutdown, when combined with the results of the general ecological survey and impingement and entrainment, will provide the empirical bases on which to judge the impact of OCGS operations on Barnegat Bay, Oyster Creek and Forked River.

3.3 ONSITE METEOROLOGICAL MONITORING

(Deleted)

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3-27 through 3-29

Amendment No. 56

4.1.4 Water Quality Study

Objective

Describe physico-chemical environment of each array and plankton station at time of every sampling.

Requirement

Salinity (accuracy of $\pm 3\%$), water temperature (accuracy of $\pm 0.45^{\circ}\text{C}$ ($\pm .81^{\circ}\text{F}$) between 5° and 25°C ($41-77^{\circ}\text{F}$) and $\pm 0.65^{\circ}\text{C}$ ($\pm 1.17^{\circ}\text{F}$) between 25° and 45°C ($77-113^{\circ}\text{F}$)), dissolved oxygen (accuracy of $\pm 2\%$) and pH (accuracy of $\pm .2$ pH units) shall be measured or determined at each array station on a monthly basis. Three replicates of each of the chemical parameters shall be determined at the time of array sampling. The instrument is calibrated before each daily use.

Action

See Section 4.1.1

Bases

The FES of OCGS identified the proliferation of woodborers in Oyster Creek and Barnegat Bay as a potentially significant impact of OCGS operation. Recent studies by JCP&L suggest a lack of correlation of OCGS operation and woodborer abundance. The woodborer monitoring program will allow future assessment of the marine borer related impacts.

4.2 Thermal Plume Measurement Program

Objective

The objective of this program is to describe the horizontal and vertical extent of the plume under various conditions of wind, plant load, pumping and tide.

Requirement

In order to understand the general three-dimensional plume configuration as it is affected by various environmental conditions, the plume shall be measured monthly. Plumes have been measured intermittently since April, 1974. Measurements performed to date have indicated that wind is the dominant factor controlling plume configuration. The measurements to be performed monthly shall be scheduled in order to assure complete coverage of

2. Maintain the information documented by the Special Surveillance Program under paragraph 2 above in station records and report it with evaluations provided in the annual report as required by item 1.

Bases

Documentation of the chemical releases from the station will enable the NRC to determine whether the facility is being operated, with respect to chemical use and discharge, in the manner evaluated in the Environmental Statement. The results of this program may be required by the NRC for evaluation of environmental events revealed by other programs conducted under these ETS.

Spent chemical reagents from the chemical laboratories are not to be included in the reporting requirement because of their small quantities and insignificant concentrations in the liquids released.

4.5 Unusual or Important Environmental Events

Environmental Monitoring Requirement

Unusual or important events are those that cause potentially significant environmental impact or that could be of public interest concerning environmental impact from station operation. The following are

examples: on-site plant or animal disease outbreaks; unusual mortality of any species protected by the Endangered Species Act of 1973; fish kills in the vicinity of the site; unusually high impingement mortality episodes.

This special requirement shall commence with the date of issuance of the OCETS and continue until approval for modification or termination is obtained from the NRC in accordance with Subsection 5.6.3.

Action

Should an unusual or important event occur, the licensee shall make a non-routine prompt report to the NRC in accordance with the provisions of Subsection 5.6.2.

Bases

Prompt reporting to the NRC of unusual or important events as described above is necessary for responsible and orderly regulation of the nation's system of nuclear power reactors. The information provided may be useful or necessary to others concerned with the same environmental resources. Prompt knowledge and action may serve to alleviate the magnitude of the environmental impact.

- G. Proposed changes or modifications to plant systems or equipment and a determination of the environmental impact resulting from the changes.
- H. Adequacy of the procedures described in Section 5.5.2 and the results obtained and conclusions drawn from the monitoring programs and special studies involved in the OCETS.
- I. Adequacy of investigations of violations of the OCETS and adequacy of and implementation of the recommendations to prevent recurrence of the violations.

5.4 Action To Be Taken If A Limiting Condition For Operation Is Exceeded

- 5.4.1 Any remedial action permitted by the OCETS will be taken until the limiting conditions can be met.
- 5.4.2 An investigation of the circumstances surrounding the violation of the limiting condition for operation will be initiated by the Station Manager and reviewed in accordance with Section 5.3.
- 5.4.3 A report of each occurrence of a violation of a limiting condition for operation of the OCETS will be prepared as specified in Section 5.6.2.

5.5 Procedures

- 5.5.1 Detailed written procedures, including applicable check lists and instructions, will be prepared and adhered to for all activities involved in carrying out OCETS. Procedures shall include sampling, data recording and storage, instrument calibration, measurements, analyses and actions to be taken when limits are approached or exceeded. Testing frequency of any alarms will be included. These frequencies, if not specified in the OCETS, will be determined from experience with similar instruments in similar environments and from manufacturers' technical manuals.
- 5.5.2 Procedures will be prepared for assuring the quality of environmental monitoring and surveillance program results, including analytical measurements. These procedures will document the monitoring and surveillance programs in terms of policy directives, responsible individuals or groups, purchased services and audits and will include systems that will identify and correct deficiencies, investigate anomalous or suspect results and review and evaluate program results and reports.
- 5.5.3 In addition to the procedures specified in Section 5.5.1, the plant standard operating procedures for systems which directly interact with the outside environment will include provisions to ensure the plant and its systems and components are operated in compliance with the limiting conditions for operation established as part of the OCETS.

5.6 Plant Reporting Requirements

5.6.1 Routine Reports

A. Annual Environmental Operating Report

A report on the non-radiological environmental surveillance programs for the previous 12 months of operation shall be submitted to the Office of Inspection and Enforcement (with copy to the Director of Nuclear Reactor Regulation) as a separate document within 90 days after January 1 of each year (except as otherwise specified in the OCETS). In the event that some results are not available within the 90-day period, the report will be submitted noting and explaining the reasons for the missing data. The missing data shall be submitted as soon as possible in a supplementary report. The report shall include summaries, analyses, interpretations and statistical evaluation of the results of the environmental monitoring required by the nonradiological environmental monitoring activities (Section 3), and the special monitoring study activities (Section 4) for the report period, including a comparison with preoperational studies, operational controls (as appropriate) and previous environmental monitoring reports, and an assessment of the observed impacts of the station operation on the environment. If harmful effects or

evidence of irreversible damage are suggested by the monitoring or special programs, the licensee shall provide a more detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Report shall also include a summary of:

- 1) All OCETS noncompliances and the corrective actions taken to remedy them.
- 2) Changes made to state and federal permits and certificates which pertain to the requirements of OCETS.
- 3) Changes in station design which could involve an environmental impact.
- 4) Changes in ETS.

5.6.2 Non-Routine Environmental Operating Reports

A prompt report shall be submitted in the event that a limiting condition for operation is exceeded (as specified in Section 2.0, Limiting Conditions for Operation) or if an unusual or Important Environmental Event occurs (as specified in Section 4.5). Such an occurrence will be reported within 24 hours by telephone, telegraph, or facsimile transmission to the Office of Inspection and Enforcement and within 30 days by a written report to the Director of the

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-219JERSEY CENTRAL POWER & LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 56 to Provisional Operating License No. DPR-16, issued to Jersey Central Power & Light Company (the licensee), which revised the Technical Specifications for operation of the Oyster Creek Nuclear Generating Station (the facility) located in Ocean County, New Jersey. The amendment is effective as of its date of issuance.

This amendment approves modifications to the Appendix B (Environmental) Technical Specifications which will allow: (1) suspension of certain monitoring programs [Sections 3.1.2.A(2) and 3.1.2.C], and (2) editorial corrections required because of inconsistencies, or redundancies. The onsite meteorological monitoring program in the Appendix A Technical Specifications is duplicated in Section 3.3, and therefore, has been deleted.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

- 2 -

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated January 8, 1981, (2) Amendment No. 56 to License No. DPR-16, and (3) the Commission's letter of transmittal. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at the Ocean County Library, Brick Township Branch, 401 Chambers Bridge Road, Brick Town, New Jersey 08723. A single copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 2nd day of September, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing